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10	20	30	40	50	60
MLLFVLTCLL	AVFPAISTKS	PIFGPEEVNS	VEGNSVSITC	YYPPTSVNRH	TRKYWCRQGA
70	80	90	100	110	120
RGGCITLISS	EGYVSSKYAG	RANLTNFPEN	GTFVVNIAQL	SQDDSGRYKC	GLGINSRGLS
130	140	150	160	170	180
FQVSLEVSQG	PGLLNDTKVY	TVDLGRVTI	NCDFKTENAQ	KRKSLEYKQIG	LYPVLVIDSS
190	200	210	220	230	240
GYVNPNYTGR	IRLDIQGTGQ	LLFSVWINQL	RLSDAGQYLC	QAGDDSNSENK	KNADLQVLKP
250	260	270	280	290	300
EPFLVYEDLR	GSVTFHCALG	PEVANVAKFL	CROSSGECND	VVVNTLGKRA	PAFEGRILLN
310	320	330	340	350	360
PQDKDGSFSV	VITGLRKEDA	GRYLCGAHSD	GQLQEGSPIQ	AWQLFVNEES	TIPRSPTVVK
370	380	390	400	410	420
GVAGSSVAVL	CPYNRKESKS	IKYWCLWEGA	QNGRCPLLVD	SEGWVKAQYE	GRLSLLEEPG
430	440	450	460	470	480
NGTFTVILNQ	LTSRDAGFYW	CLTNGDTLWR	TTVEIKIIEG	EPNLKVPGNV	TAVLGETLKV
490	500	510	520	530	540
PCHFPCKFSS	YEKYWCKWNN	TGCQALPSQD	EGPSKAFVNC	DENSRLVSLT	LNLVTRADEG
550	560	570	580	590	600
WYWCGVKQGH	FYGETAAVYV	AVEERKAAGS	RDVSLAKADA	APDEKVLDSG	FREIENKAIQ
610	620	630	640	650	660
DPRLFASSKA	VADTRDQADG	SRASVDSGSS	EEQGGSSRAL	VSTLVPLGLV	LAVGAVAVGV
670	680	690	700	710	720
ARARHRKQVD	RVSIRSRYTD	ISMSDFENSR	EFGANDNMGA	SSITQETSLG	GKEEFVATTE
730	740	750	760		
STTETKEPKK	AKRSSKEEAE	MAYKDFLLQS	STVAASEAQDG	PQEA	

Figure 2

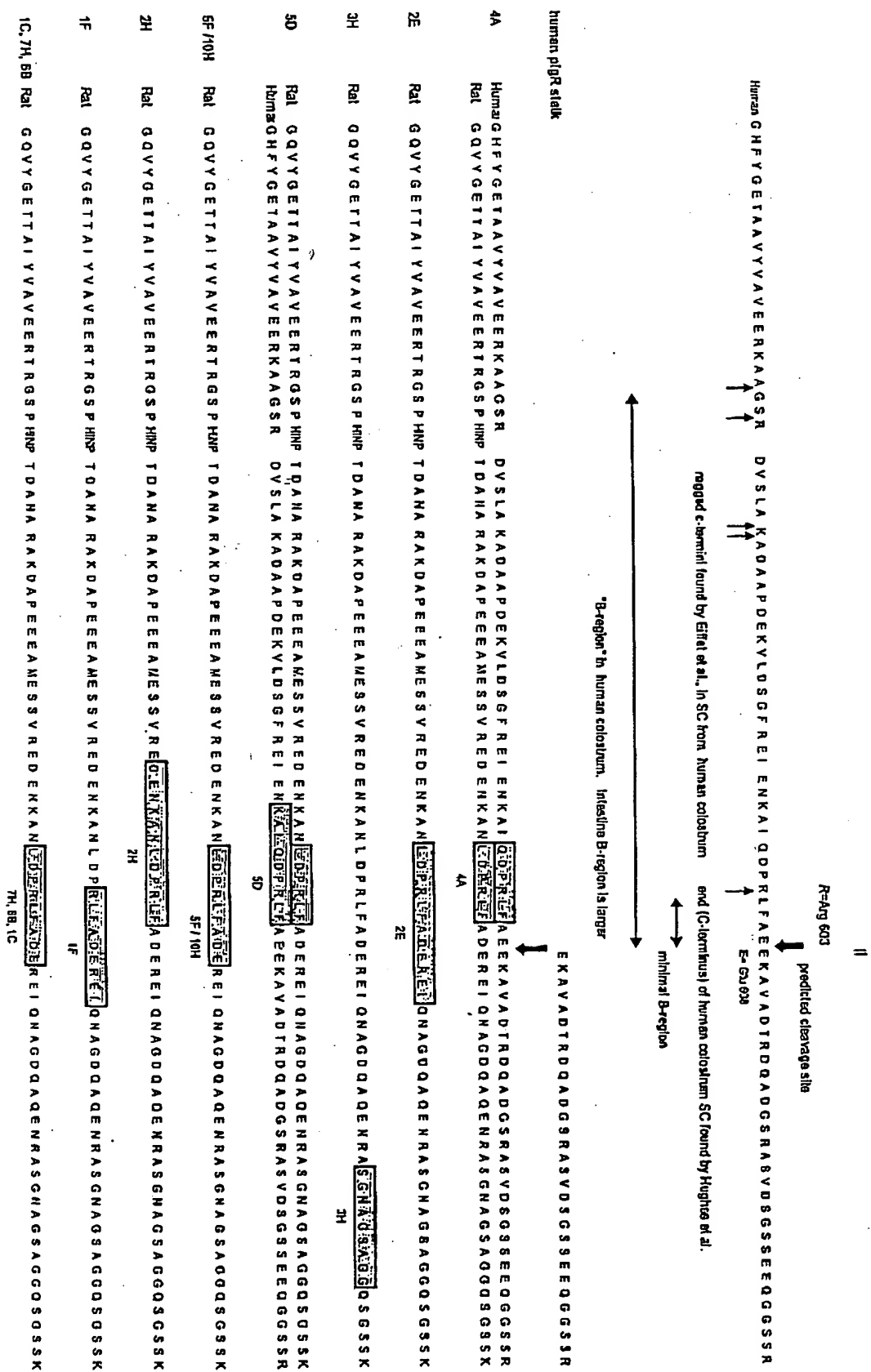


Figure 3

pelb/4AF/myc/6HIS

PelB leader		FLAG	Heavy chain FR 1	CDR 1
MKYLLPTAAGLLLLAQPAMADYKAKQVLVQSGGLVQPGGSLRLSCAASGFTSSYAMS				
FR 2	CDR 2		FR 3	
WVRQAPGKLEWVSATISGSGSTYYADSVKGRFTISRDNKNTLLYQMNSLRADTAVYYCAR				
CDR 3	FR 4	linker	Light chain FR 1	CDR 1
SFTVNSGYFQHWGQGLTVVSSGGGSGGGSGGGSEIVLTQSPSTLSASIGDRVITCRASEGIYHWLA				
FR 2	CDR 2	FR 3	CDR 3	
WYQQKPGKAPKLLTYKASSLASGVPSPRFSGSGGTDTFTLTISLQPEDFATYYQQHYDSTPPT				
FR 4	myc	6 HIS		
FGQGTKVDIKRAAAEQKLISEEDINGAALHHHHH				

The amino acid sequence of the secreted form of the ScFv 4AF is shown. The ScFv consists of a pelb leader (for secretion in *E. coli*), a FLAG epitope tag, a heavy chain variable region, a linker sequence (GGGS repeated three times), a light chain variable region, a myc epitope tag and a 6HIS tag (for purification by Immobilized Metal-ion Affinity Chromatography (IMAC)). The framework (FR) and complementarity-determining regions (CDR) of the heavy chain and light chain are indicated.

Figure 5